ELSEVIER

Bioenergetics
(including Reviews on Bioenergetics)
Vol. 1322, 1997

BIOCHIMICA ET BIOPHYSICA ACTA
BBA

Cumulative Contents

Information for Contributors *vii*

Short sequence-paper

The orange carotenoid protein of *Synechocystis* PCC 6803
Y.P. Wu and D.W. Krogmann (USA) 1

Regular papers

Contribution to the physiological characterization of glycerol active uptake in *Saccharomyces cerevisiae*
F. Lages and C. Lucas (Portugal) 8

The pH dependences of reactions catalyzed by the complete proton-translocating transhydrogenase from *Rhodospirillum rubrum*, and by the complex formed from its recombinant nucleotide-binding domains
T. Bizouarn, S. Stilwell, J. Venning, N.P.J. Cotton and J.B. Jackson (UK) 19

Exchangeability of the b subunit of the Cl^--translocating ATPase of *Acetabularia acetabulum* with the β subunit of *E. coli* F_1-ATPase: Construction of the chimeric β subunits and complementation studies
M. Ikeda, H. Kadowaki, H. Ikeda, C. Moritani and H. Kanazawa (Japan) 33

Study of regulation of mitochondrial respiration in vivo. An analysis of influence of ADP diffusion and possible role of cytoskeleton
L. Kay, Z. Li, M. Mericskay, J. Olivares, L. Tranqui, E. Fontaine, T. Tiivel, P. Sikk, T. Kaambre, J.-L. Samuel, L. Rappaport, Y. Usson, X. Leverve, D. Paulin and V.A. Saks (France, Estonia) 41

Modification of the photosystem II acceptor side function in a D1 mutant (arginine-269-glycine) of *Chlamydomonas reinhardti*
J. Xiong, R.S. Hutchison, R.T. Sayre and Govindjee (USA) 60

Information for Contributors *vii*

Rapid report

The distance between P680 and Q_A in Photosystem II determined by ESEEM spectroscopy
H. Hara, S.A. Dzuba, A. Kawamori, K. Akabori, T. Tomo, K. Satoh, M. Iwaki and S. Itoh (Japan, Russian Federation) 77

Review

Rotary chemiosmotic machines
S. Khan (USA) 86

Regular papers

The involvement of the two acidic patches of spinach plastocyanin in the reaction with photosystem I
S. Young, K. Sigfridsson, K. Olesen and Ö. Hansson (Sweden) 106

The P700 triplet state in an intact environment detected by ODMRA well resolved triplet minus singlet spectrum
D. Carbonera, P. Collareta and G. Giacometti (Italy) 115

Kinetic isotope effects on the reduction of the Y_z radical in oxygen evolving and tris-washed photosystem II membranes by time-resolved EPR
N. Lydakis-Simantiris, D.F. Ghanotakis and G.T. Babcock (USA, Greece) 129

Electron paramagnetic resonance kinetic studies of the S states in spinach PSII membranes
M. Reza Razeghifard and R.J. Pace (Australia) 141

Comparison of acid denaturation and light activation in the eubacterial blue-light receptor photoactive yellow protein
W.D. Hoff, I.H.M. Van Stokkum, J. Gural and K.J. Hellingwerf (The Netherlands, USA) 151

Structural analysis of the photosynthetic reaction center from the green sulfur bacterium *Chlorobium tepidum*

ELSEVIER

Bioenergetics
(including Reviews on Bioenergetics)
Vol. 1322, 1997

BIOCHIMICA ET BIOPHYSICA ACTA
BBA

Cumulative Contents

Information for Contributors *vii*

Short sequence-paper

The orange carotenoid protein of *Synechocystis* PCC 6803
Y.P. Wu and D.W. Krogmann (USA) 1

Regular papers

Contribution to the physiological characterization of glycerol active uptake in *Saccharomyces cerevisiae*
F. Lages and C. Lucas (Portugal) 8

The pH dependences of reactions catalyzed by the complete proton-translocating transhydrogenase from *Rhodospirillum rubrum*, and by the complex formed from its recombinant nucleotide-binding domains
T. Bizouarn, S. Stilwell, J. Venning, N.P.J. Cotton and J.B. Jackson (UK) 19

Exchangeability of the b subunit of the Cl^--translocating ATPase of *Acetabularia acetabulum* with the β subunit of *E. coli* F_1-ATPase: Construction of the chimeric β subunits and complementation studies
M. Ikeda, H. Kadowaki, H. Ikeda, C. Moritani and H. Kanazawa (Japan) 33

Study of regulation of mitochondrial respiration in vivo. An analysis of influence of ADP diffusion and possible role of cytoskeleton
L. Kay, Z. Li, M. Mericskay, J. Olivares, L. Tranqui, E. Fontaine, T. Tiivel, P. Sikk, T. Kaambre, J.-L. Samuel, L. Rappaport, Y. Usson, X. Leverve, D. Paulin and V.A. Saks (France, Estonia) 41

Modification of the photosystem II acceptor side function in a D1 mutant (arginine-269-glycine) of *Chlamydomonas reinhardti*
J. Xiong, R.S. Hutchison, R.T. Sayre and Govindjee (USA) 60

Information for Contributors *vii*

Rapid report

The distance between P680 and Q_A in Photosystem II determined by ESEEM spectroscopy
H. Hara, S.A. Dzuba, A. Kawamori, K. Akabori, T. Tomo, K. Satoh, M. Iwaki and S. Itoh (Japan, Russian Federation) 77

Review

Rotary chemiosmotic machines
S. Khan (USA) 86

Regular papers

The involvement of the two acidic patches of spinach plastocyanin in the reaction with photosystem I
S. Young, K. Sigfridsson, K. Olesen and Ö. Hansson (Sweden) 106

The P700 triplet state in an intact environment detected by ODMRA well resolved triplet minus singlet spectrum
D. Carbonera, P. Collareta and G. Giacometti (Italy) 115

Kinetic isotope effects on the reduction of the Y_z radical in oxygen evolving and tris-washed photosystem II membranes by time-resolved EPR
N. Lydakis-Simantiris, D.F. Ghanotakis and G.T. Babcock (USA, Greece) 129

Electron paramagnetic resonance kinetic studies of the S states in spinach PSII membranes
M. Reza Razeghifard and R.J. Pace (Australia) 141

Comparison of acid denaturation and light activation in the eubacterial blue-light receptor photoactive yellow protein
W.D. Hoff, I.H.M. Van Stokkum, J. Gural and K.J. Hellingwerf (The Netherlands, USA) 151

Structural analysis of the photosynthetic reaction center from the green sulfur bacterium *Chlorobium tepidum*

G. Tsiotis, C. Hager-Braun, B. Wolpensinger, A. Engel and G. Hauska (Switzerland, Germany) 163

Control properties of the Calvin photosynthesis cycle at physiological carbon dioxide concentrations
G. Pettersson (Sweden) 173

Energy and entropy balance of ATP synthesis
O. Pänke and B. Rumberg (Germany) 183

Quantitative analysis of anaerobic metabolism in resting anoxic muscle by ^{31}P and ^{1}H MRS
A. Vezzoli, M. Gussoni, F. Greco, L. Zetta and P. Cerretelli (Italy) 195

Oxidation of acetate and octanoate and its relation to glucose metabolism in contracting porcine carotid artery
J.T. Barron, M. Bárány, L. Gu and J.E. Parrillo (USA) 208

Ca^{2+} acting at the external side of the inner mitochondrial membrane can stimulate mitochondrial permeability transition induced by phenylarsine oxide
A.J. Kowaltowski and R.F. Castilho (Brazil) 221

Second-site suppressor mutations for the Arg70 substitution mutants of the Tn10-encoded metal-tetracycline/H^+ antiporter of *Escherichia coli*
Y. Someya and A. Yamaguchi (Japan) 230

Identification of the TYKY homologous subunit of complex I from *Neurospora crassa*
M. Duarte, U. Schulte and A. Videira (Portugal, Germany) 237

Cumulative Contents 242

Author Index 244